

Multimedia Appendix 4. Content analysis and features of the 18 apps that at least two respondents listed as those they have tried to manage their tinnitus: (1) White Noise Free, (2) Oticon Tinnitus Sound, (3) Relax Melodies: Sleep Sounds, (4) myNoise, (5) Tinnitus Therapy Lite, (6) Headspace: Guided Meditation & Mindfulness, (7) Sleep Bug: White Noise Soundscapes & Music Box, (8) Beltone Tinnitus Calmer, (9) Sleep Pillow, (10) Soothing Sounds Lite, (11) Tinnitus Aid: Nature sounds to mask ear ringing, (12) Tinnitus Balance, (13) Rain Rain Sleep Sounds, (14) Nature Sounds, (15) Relax Noise 3, (16) ReSound Relief, (17) Sleep Well Hypnosis, (18) Zenways. **V** – content/feature present in an app.

[illegible]

dark rain, fairy rain, under the leaves for Rain Noise)																			
• Endless sounds	V	V	V	V	V		V	V	V	V		V	V	V	V	V		V	
• Looping sounds	V		V									V							
• Advanced soundscape generator which does not loop sounds but generates them in a way that one would not hear the same 10 seconds of sound										V									
• Loop correction (different modes in case the pause could be heard in the looped sounds)			V																
• 'Long high-quality recordings'											V								
• Mix different sounds to create personalised 'soundscapes'	V		V				V	V	V	V	V		V			V			
• Adjusting the volume of the mixed sounds individually	V		V				V	V	V	V	V		V			V			
• Adjusting the balance of sound in the mix individually	V							V								V			
• Adjusting the pitch of the sounds in the mix individually	V																		
• Adding random sound effects to the main sound							V							V					
• Rating or marking the favourite sounds and storing them in the favourite folder	V	V						V				V				V			
• User can create personalised sound plan and organise the sounds according to sound type or situations		V						V				V				V			
• Binaural bits or isochronic tones			V	V						V									V
• Play sound in the background while using other apps		V	V	V			V	V	V		V	V	V		V	V		V	
• Sound in the context of specific management programme – Progressive												V							

[illegible]

insomnia				V														
• Role of binaural beats				V														
• Role of different frequencies of binaural beats			V															
• What is mediation and mind training						V												
• Weblinks to more information or app help and troubleshooting			V	V	V			V							V	V	V	
• Help Section or brief introduction to an app	V	V			V			V								V	V	
Hypnosis																	V	
• Loop sessions																	V	
Non-auditory stimuli								V								V		
• Secondary stimuli – colours (choice of ‘colour mood’)								V								V		
• High quality graphics (as per app description)							V		V		V			V				
Technical features																		
• Content can be downloaded and works offline (no streaming required)	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
• Remote controls to adjust volume while screen is on lock	V	V	V				V	V								V	V	
• Remote controls to pause/start/close the apps while on the screen lock		V	V				V	V								V	V	
• Sharing	V		V								V						V	V
• App community	V			V														
• Advert free		V		V	V	V	V	V				V	V	V	V	V	V	V
• Progress/usage tracking			V			V		V				V				V		
• Available in multiple language options		V	V					V	V	V	V	V	V	V		V		
• Timer for controlling length of sounds or sessions	V	V	V	V	V		V	V	V		V	V	V	V		V	V	V
• Fading out audio option	V										V				V			

• Clock	V		V				V											
• Alarm	V		V							V								
• Date display							V											
• Bedtime reminders			V										V					